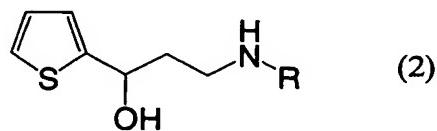


CLAIMS

1. A process for producing an *N*-monoalkyl-3-hydroxy-3-(2-thienyl)propanamine represented by General Formula (2):

5



wherein R is C₁₋₄ alkyl, comprising the step of reducing a (Z)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine represented

10 by General Formula (1):

wherein R is as defined above.

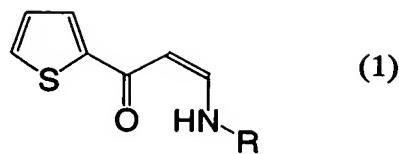
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2. The process according to Claim 1, wherein the (Z)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine is reduced using sodium borohydride or sodium cyanoborohydride.

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3. The process according to Claim 1, wherein the (Z)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine is reduced in the presence of a proton-donating compound.

25 4. A (Z)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine represented by General Formula (1):



wherein R is C₁₋₄ alkyl.

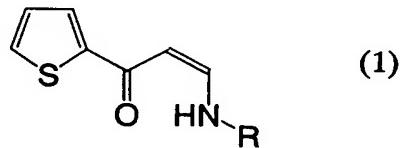
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5. The (Z)-N-monoalkyl-3-oxo-3-(2-thienyl)propenamine according to Claim 4, wherein R in General Formula (1) is methyl.

10

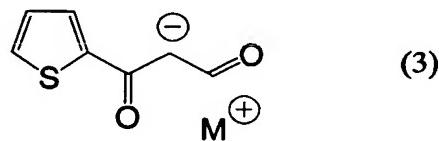
6. A process for producing a (Z)-N-monoalkyl-3-oxo-3-(2-thienyl)propenamine represented by General Formula (1):

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wherein R is C₁₋₄ alkyl, comprising the step of reacting an alkali metal salt of β-oxo-β-(2-thienyl)propanal represented by General Formula (3):

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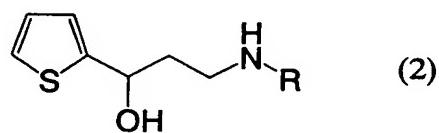
wherein M is an alkali metal atom, with a monoalkylamine compound represented by General Formula (4):



25 wherein R is as defined above.

7. A process for producing an *N*-monoalkyl-3-hydroxy-3-(2-thienyl)propanamine represented by General Formula (2):

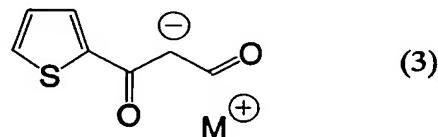
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wherein R is C₁₋₄ alkyl, comprising the steps of:

reacting an alkali metal salt of β -oxo- β -(2-thienyl)propanal represented by General Formula (3):

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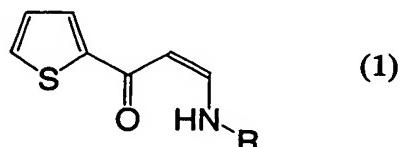
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wherein M is an alkali metal atom, with a monoalkylamine compound represented by General Formula (4):



wherein R is as defined above, to give a (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine represented by General Formula (1):

20



wherein R is as defined above; and

reducing the (*Z*)-*N*-monoalkyl-3-oxo-3-(2-thienyl)propenamine.

25

8. The process according to Claim 7, wherein the (Z)-N-monoalkyl-3-oxo-3-(2-thienyl)propenamine is reduced using sodium borohydride or sodium cyanoborohydride.

5

9. The process according to Claim 7, wherein the (Z)-N-monoalkyl-3-oxo-3-(2-thienyl)propenamine is reduced in the presence of a proton-donating compound.